AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Currently Amended) A method for locating signal path-rays in a communications system, comprising the steps of:

receiving a signal;

decimating said signal to produce a decimated signal;

processing said decimated signal to produce at least one first location having a first precision;

processing said received signal and a generated code using said at least one first location having said first precision to produce at least one second location having a second precision, said first precision being less precise than said second precision; and

~~The method according to Claim 1, wherein~~ said step of processing said signal and a generated code using said at least one first location to produce at least one second location comprises the step of shifting one of said signal and said generated code responsive to said at least one first location to create a ~~shifted variable and a non-shifted variable~~ plurality of shifted variables.

9. (Currently Amended) The method according to Claim 8, wherein said step of processing said signal and a generated code using said at least one first location to produce at least one second location further comprises the step of correlating said

shifted ~~variable~~ variables with said non-shifted variable to produce a plurality of correlation values.

10. (Original) The method according to Claim 9, wherein said step of processing said signal and a generated code using said at least one first location to produce at least one second location further comprises the step of comparing said plurality of correlation values to select said at least one second location.

11. (Currently Amended) The method according to Claim 9, wherein said shifted ~~variable~~ variables comprise ~~comprises~~ said received signal and said non-shifted ~~variable~~ variables comprise ~~comprises~~ said generated code.

12. (Currently Amended) The method according to Claim 9, wherein said shifted variable comprises said generated code and said non-shifted variable comprises said received signal.

13. (Canceled)

14. (Currently Amended) A receiver system for locating signal path-rays in a communications system, comprising:

a decimation part that decimates a signal in accordance with a decimation factor;

at least one filter connected to said decimation part, said at least one filter involved in determining a first location of said signal;

a code generator part, said code generator part adapted to generate ~~at least one~~ a code pattern, wherein a version of said ~~at least one~~ code pattern is an un-shifted version of said ~~at least one~~ code pattern;

~~at least one shifter~~ at least two shifters connected to said at least one filter to receive said first location and said signal, said ~~at least one shifter~~ at least two shifters for shifting said signal to produce ~~a shifted version~~ at least two shifted versions of said signal based on said first location; and

at least one correlator, said at least one correlator correlating the shifted version of said signal to the un-shifted version of said at least one code pattern.

15. (Canceled)

16. (Canceled)

17. (Previously Presented) The receiver system according to Claim 14, further comprising an analog-to-digital converter, said analog-to-digital converter converting

said signal to a digital sampled signal prior to said decimation part decimating said signal.

18. (Original) The receiver system according to Claim 17, wherein a sampling rate of said analog-to-digital converter is such that an analog version of said signal is sampled a plurality of times per chip.

19. (Original) The receiver system according to Claim 18, wherein said sampling rate and said decimation factor are determinative, at least in part, of a precision of said first location.

20. (Original) The receiver system according to Claim 14, further comprising a peak detector; and

wherein said at least one filter comprises a plurality of matched filters, said plurality of matched filters include at least one finite impulse response (FIR) filter, an input of said peak detector is comprised of an output of said at least one FIR filter, and said first location is comprised of an output of said peak detector.

21. (Original) The receiver system according to Claim 14, wherein said at least one correlator comprises a plurality of correlators, each of said plurality of correlators including a multiplying mixer and an integrator.

22. (Original) The receiver system according to Claim 14, further comprising a comparison part; and

wherein said at least one correlator comprises a plurality of correlators, each of said plurality of correlators outputs a correlation value, said comparison part selects the highest value from among the output correlation values, and a second location output from said comparison part is comprised of said highest value or a related value.

23. (Original) The receiver system according to Claim 22, wherein a first precision of said first location is less exact than a second precision of said second location.

24. (Original) The receiver system according to Claim 14, wherein said communications system comprises a wireless Code Division Multiple Access (CDMA) communications system.

25. (Currently Amended) The receiver system according to Claim 14, further comprising a comparison part and a plurality of rake fingers, said comparison part

receiving at least one output from said at least one correlator and providing a second location to ~~at least one of~~ said plurality of rake fingers.

26. (Canceled)

27. (Canceled)

28. (Currently Amended) A method for locating signal path-rays in a communications system, comprising the steps of:

receiving a signal;

decimating said signal to produce a decimated signal;

processing said decimated signal to produce at least one first location having a first precision;

processing said received signal and a generated code using said at least one first location having said first precision to produce at least one second location having a second precision, said first precision being less precise than said second precision;

~~The method according to Claim 1, wherein~~ said step of processing said signal further comprising ~~comprises~~ the steps of:

generating [[a]] said code;

shifting based on said first location;

correlating said generated code to said signal, ~~at least~~ one of said generated code and said signal having been shifted in said step of shifting; and

selecting said second location in response to said step of correlating.

29. (Currently Amended) A receiver system for locating signal path-rays in a communications system, comprising:

a decimation part that decimates a signal in accordance with a decimation factor;

at least one filter connected to said decimation part, said at least one filter involved in determining a first location of said signal;

a code generator part, said code generator part adapted to generate ~~at least one~~ a code pattern;

~~at least one shifter~~ at least two shifters connected to said at least one filter to receive said first location, ~~and at least one of~~ said signal ~~and~~ or said ~~at least one~~ a code pattern, said at least one shifter performing ~~at least one of~~ either:

~~shifting~~ a shifting of said signal to produce a shifted version of said signal based on said first location; ~~and~~ or

~~shifting said at least one~~ a shifting of said code pattern to produce a ~~shifted version~~ plurality of shifted versions of said ~~at least one~~ code pattern based on said first location;

at least one correlator, said at least one correlator performing at least one of:

correlating said shifted version of said signal to an un-shifted version of said ~~at least one~~ code pattern to produce a second location~~; and~~ , when said signal is shifted by said shifters; or

correlating an un-shifted version of said signal to said shifted version of said ~~at least one~~ code pattern to produce said second location when said code sequence is shifted by said shifters.

30. (Currently Amended) A receiver system for locating signal path-rays in a communications system, comprising:

a decimation part that decimates a signal in accordance with a decimation factor;

at least one filter connected to said decimation part, said at least one filter involved in determining a first location of said signal;

a code generator part, said code generator part adapted to generate ~~at least one~~ code pattern;

~~at least one shifter~~ at least two shifters connected to said at least one filter to receive said first location and said ~~at least one~~ code pattern, said ~~at least one shifter~~ at least two shifters for shifting said ~~at least one~~ code pattern to produce a ~~shifted version~~ plurality of shifted versions of said ~~at least one~~ code pattern based on said first location; and

at least one correlator, said at least one correlator correlating an un-shifted version of said signal to the ~~shifted version~~ plurality of shifted versions of said ~~at least one~~ code pattern.

31. (Previously Presented) The receiver system according to Claim 30, further comprising analog-to-digital converter, said analog-to-digital converter converting said signal to a digital sampled signal prior to said decimation part decimating said signal.

32. (Previously Presented) The receiver system according to Claim 31, wherein sampling rate of said analog-to-digital converter is such that an analog version of said signal is sampled a plurality of times per chip.

33. (Previously Presented) The receiver system according Claim 32, wherein said sampling rate and said decimation factor are determinative, at least in part, of a precision of said first location.

34. (Previously Presented) The receiver system according to Claim 30, further comprising a peak detector; and

wherein said at least one filter comprises a plurality of matched filters, said plurality of matched filters include at least one finite impluse response (FIR) filter, an input of said peak detector is comprised of an output of said at least one FIR filter, and said first location is comprised of an output of said peak detector.

35. (Previously Presented) The receiver system according to Claim 30, wherein said at least one correlator comprises a plurality of correlators~~,~~ each of said plurality of correlators including a multiplying mixer and an integrator.

36. (Previously Presented) The receiver system according to Claim 30, further comprises a comparison part; and

wherein said at least one correlator comprises a plurality of correlators~~,~~ each of said plurality of correlators outputs a correlation value, said comparison part selects the highest value from among the output correlation values, and a second location output from said comparison part is comprised of said highest value ~~or a related value~~.

37. (Previously Presented) The receiver system according to Claim 36, wherein a first precision of said first location is less exact than a second precision of said second location.

38. (Previously Presented) The receiver system according to Claim 30, wherein said communications system comprises a wireless Code Division Multiple Access (CDMA) communications system.

39. (Currently Amended) The receiver system according to Claim 30, further comprising a comparison part and a plurality of rake fingers, said comparison part receiving at least one output from said at least one correlator the outputs of said

correlators and providing a second location to ~~at least one of~~ said plurality of rake fingers.